

In the Claims

1-33 (Canceled).

34 (Currently Amended): A method of reducing chemotherapy-induced alopecia in a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the mammalian animal against chemotherapy-induced alopecia comprising:

a) administering a heat dose that causes an increase in the concentration of at least one stress protein selected from the group consisting of Hsp90, Hsp70, Hsp25-27 and P-glycoprotein in hair follicles residing in skin or scalp that is exposed to the heat dose and that produces an increased resistance of the hair follicles to chemotherapeutic drugs in the scalp or other region susceptible to chemotherapy-induced alopecia of a human patient or the skin of a mammalian; and

b) administering a chemotherapeutic drug to said human patient or said mammalian animal, wherein said heat dose is administered to the scalp of a human patient or the skin of a mammalian animal at a temperature of about 39-45°C for about 15-120 minutes and said chemotherapeutic drug is administered between about 2 hours and 24 hours after said heat dose is administered.

35 (Canceled).

36 (Previously Presented): The method according to claim 34, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

37 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by direct contact with a heated surface.

38 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by direct contact with a heated liquid.

39 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by an infrared radiation.

40 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by microwave radiation.

41 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by ultrasound.

42 (Previously Presented): The method according to claim 36, wherein the heat dose is administered by radiofrequency radiation.

43-65 (Canceled).

66 (Currently Amended): A method for protecting a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal against chemotherapy-induced alopecia, the protective method comprising administering a heat dose to the scalp or other region susceptible to chemotherapy-induced alopecia of the human patient or the skin of the animal whereby hair follicles in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal are heated to and maintained at a temperature of about 39-45°C for about 15-120 minutes and administering a chemotherapeutic drug to said human patient or mammalian animal between about 2 hours and 24 hours after said heat dose is administered.

67 (Previously Presented): The method of claim 66, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

68 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by direct contact with a heated surface.

69 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by direct contact with a heated liquid.

70 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by an infrared radiation.

71 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by microwave radiation.

72 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by ultrasound.

73 (Previously Presented): The method according to claim 67, wherein the heat dose is administered by radiofrequency radiation.

74 (Canceled).

75 (Currently Amended): A method for protecting a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal against chemotherapy-induced alopecia, the protective method comprising administering a heat dose to the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the

animal, wherein the effective heat dose is a dose equal or greater to that required to cause an increase in the concentration of a stress protein selected from the group consisting of Hsp90, Hsp70, Hsp25-27 and P-glycoprotein in cells of hair follicles and administering a chemotherapeutic agent to said human patient or said mammalian animal, wherein said hair follicles of the scalp of said human patient or the skin of said mammalian animal is heated at about 39-45°C for about 15-120 minutes and said chemotherapeutic drug is administered between about 2 hours and 24 hours after said heat dose is administered.

76 (Canceled).

77 (Previously Presented): The method according to claim 75, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

78 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by direct contact with a heated surface.

79 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by direct contact with a heated liquid.

80 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by an infrared radiation.

81 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by microwave radiation.

82 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by ultrasound.

83 (Previously Presented): The method according to claim 77, wherein the heat dose is administered by radiofrequency radiation.

84-98 (Canceled).

99 (New): A method for reducing chemotherapy-induced alopecia in a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia comprising administering a heat dose to the scalp or other region susceptible to chemotherapy-induced alopecia of the human patient or the skin of the animal whereby hair follicles in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal are heated to and maintained at a temperature of about 39-45°C for about 15-120 minutes and administering a chemotherapeutic drug to said human patient or mammalian animal between about 2 hours and 24 hours after said heat dose is administered.

100 (New): The method according to claim 99, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

101 (New): The method according to claim 100, wherein the heat dose is administered by direct contact with a heated surface.

102 (New): The method according to claim 100, wherein the heat dose is administered by direct contact with a heated liquid.

103 (New): The method according to claim 100, wherein the heat dose is administered by a infrared radiation.

104 (New): The method according to claim 100, wherein the heat dose is administered by microwave radiation.

105 (New): The method according to claim 100, wherein the heat dose is administered by ultrasound.

106 (New): The method according to claim 100, wherein the heat dose is administered by radiofrequency radiation.